

## CLAIMS:

1. A light burner (1) comprising: - a discharge chamber (2) containing a gas sealed in the discharge chamber (2) by a seal (4, 5); - a pair of electrode shafts (6, 7), each of which partially intrudes from the seal (4, 5) into the discharge chamber (2) whereby a wrapping (8, 9), at least partially contained in the seal, is freely wound around at least one of the electrode shafts (6, 7) and constrained in its motion by a number of containment elements (P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P<sub>4</sub>) positioned along the longitudinal axis of the electrode (6, 7).
2. The burner of claim 1, wherein the containment elements comprise containment pins (P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P<sub>4</sub>) affixed at certain positions along the lengths of the electrode shafts (6, 7).
3. The burner according to claim 1 or 2, wherein the containment pins (P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P<sub>4</sub>) are moulded from the body of the electrode shaft (6, 7).
4. The burner according to any preceding claim, wherein the wrappings (8, 9) are entirely contained by the quartz glass seals (4, 5).
5. The burner according to any of the preceding claims, wherein a slight gap exists between the wrapping (8, 9) and the electrode shaft.
6. A method for manufacturing a burner comprising a discharge chamber (2) closed by a seal (4, 5), and a pair of electrode shafts (6, 7), each of which partially intrudes from the seal (4, 5) into the discharge chamber (2), wherein a wrapping (8, 9), at least partially contained in the seal (4, 5), is wound around at least one of the electrode shafts (6, 7), and a number of containment elements (P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P<sub>4</sub>) are

positioned along the longitudinal axis of the electrode shaft (6, 7) so as to constrain the wrapping (8, 9) in its motion.

7. The method according to claim 6, wherein the wrapping (8, 9) is wound  
5 directly around the electrode shaft (6, 7).

8. The method according to claim 6, wherein the wrapping (8, 9) is first  
wound before being placed over the electrode shaft (6, 7).

10 9. The method according to any of claims 6 to 8, wherein containment  
elements (P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P<sub>4</sub>) are formed from the body of the electrode shafts (6, 7).

10. The method according to claim 9, wherein a laser beam is directed at the  
electrode shaft (6, 7), so that the material of the electrode shaft (6, 7) is softened or  
15 melted at the point of contact of the laser beam with the electrode shaft (6, 7) to form  
the containment elements (P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P<sub>4</sub>).